

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **042009-014** Project Number: 2009-03-080

Parent Company: L. Berry Gin Co.

Parent Company Address: 175 4th St., Holland, MO 63853

Installation Name: L. Berry Gin Co.

Installation Address: 175 4th St., Holland, MO 63853

Location Information: Pemiscot County, S4, T16N, R11E

Application for Authority to Construct was made for:
 The replacement of a gin stand. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

-
- Standard Conditions (on reverse) are applicable to this permit.
 - Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

APR 27 2009

EFFECTIVE DATE

DIRECTOR OR DESIGNEE
 DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

L. Berry Gin Co.
Pemiscot County, S4, T16N, R11E

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permit 0594-019A from the Air Pollution Control Program.
2. **Particulate Matter Less Than Ten (10) Microns in Aerodynamic Diameter (PM₁₀) Emissions Limitation**
 - A. L. Berry Gin shall emit less than 29.3 tons of PM₁₀ in any consecutive 12 month period from the entire installation (as listed in Table 1).
 - B. L. Berry Gin shall maintain an accurate record of PM₁₀ emitted into the atmosphere from the entire installation. Attachment A or an equivalent form shall be used for this purpose. L. Berry Gin shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
 - C. L. Berry Gin shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.B indicate that the source exceeds the limitation of Special Condition Number 2.A.
3. **Control Device Requirement-Cyclones**
 - A. L. Berry Gin shall control emissions from all exhausts using high efficiency cyclones as specified in the permit application. The cyclones shall be operated and maintained in accordance with the manufacturer's specifications.
 - B. L. Berry Gin shall maintain an operating and maintenance log for the cyclones which shall include the following:
 - (1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - (2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

4. Haul Road Watering
L. Berry Gin Co. shall water haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2009-03-080
Installation ID Number: 155-0021
Permit Number:

L. Berry Gin Co.
175 4th St.
Holland, MO 63853

Complete: March 31, 2009

Parent Company:
L. Berry Gin Co.
175 4th St.
Holland, MO 63853

Pemiscot County, S4, T16N, R11E

REVIEW SUMMARY

- L. Berry Gin Co. has applied for authority to replace a gin stand.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Cyclones are being used to control the PM₁₀ emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. The emissions increase of PM₁₀ is conditioned below de minimis levels.
- This installation is located in Pemiscot County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since the emissions increase of the application is below de minimis levels.

- Emissions testing is not required for the equipment.
- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

L. Berry Gin is an existing cotton gin located in Holland, Missouri. Seed cotton is brought to the gin in large modules. A module feeder removes some large debris and separates these modules. From the module feeder, the seed cotton is pneumatically conveyed to cleaners and dryers and is then sent to a gin stand. An overhead screw auger feeds the gin stands at a controlled rate. The gin stands separate the seeds from the lint using rotation saws. The cotton seed is pneumatically conveyed to a seed house for storage. The lint is cleaned and condensed into uniform bales. Mote from the lint cleaners is sent to another lint cleaner and is then condensed into bales by the mote press. The dryers are fired with natural gas. Emissions are controlled by high efficiency cyclones.

Table 1: Emission Points

Emission Point ID	Emission Point Description
EP-1	Unloading
EP-2	#1 Dryer
EP-3	#2 Dryer
EP-4	Overflow Fan
EP-5	Lint Cleaner
EP-6	Battery Condenser
EP-7	Mote Fan
EP-8	Mote Trash Fan
EP-9	Master Trash Fan
EP-10	Dryer Heater
EP-11	Haul Roads

The installation currently holds an intermediate operating permit and has submitted a renewal application. The following construction permits have been issued to L. Berry Gin Co. from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
0594-019	Replace gin stands and lint cleaners
1194-019	Trash management
0594-019A	Re-evaluate emission factors

PROJECT DESCRIPTION

L. Berry Gin Co. has applied for authority to replace an existing 161 Continental Eagle gin stand and feeder with a new 201 Eaglemax gin stand and feeder. Along with the gin stand and feeder, a 200 horsepower electric motor will be replaced with a 250 horsepower electric motor. These modifications will allow the gin to process more cotton per hour, increasing the gin's capacity from 30 bales per hour to 40 bales per hour. The modification does not effect the potential emissions of the dryer heater. Emissions from the feeder and gin stand will be routed into the existing trash handling system. This permit supersedes the special conditions of permit 0594-019A to re-establish the installation wide limit and update the record keeping requirement for cyclone maintenance. The permit also requires emissions from haul roads and vehicular activity to be controlled with water spray.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.7 "Cotton Ginning," June 1996. Emissions of sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOC) and carbon monoxide (CO) are released by the cotton gins dryers, which are natural gas fired. These emissions will not increase as a result of this project and were not considered. The PM₁₀ emissions from the dryers were included in the evaluation because they were included in the installation existing limit. These emissions were calculated using an emission factor from AP-42 Section 1.4 "Natural Gas Combustion," July 1998.

The potential emissions for the application were calculated using a potential to actual test. In this test, the baseline emissions of the cotton gin, which were calculated by finding the 12-month average annual emissions using the emissions reported in the 2007 and 2008 Emissions Inventory Questionnaire (EIQs), were subtracted from the cotton gins potential emissions. The potential emissions were calculated by multiplying the gins annual capacity assuming continuous operation (8760 hours per year) by the appropriate emission factors. The resulting emissions increase from the potential to actual test was greater than the *de minimis* level for PM₁₀ (15 tons per year), so the installation wide PM₁₀ emissions were conditioned to less than the baseline emissions plus 15 tons year (36.5 tons per year). This limit was requested by the applicant to avoid Section 6 modeling requirements for PM₁₀.

Table 3: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Potential Emissions of Modified Installation	Base Line Actual Emissions (2007 and 2008 EIQ)	Emissions Increase	New Installation Limited Potential
PM ₁₀	15.0	< 24.11	147.15	14.33	132.81	< 29.33
SO _x	40.0	N/D	N/A	N/A	N/A	N/A
NO _x	40.0	N/D	N/A	N/A	N/A	N/A
VOC	40.0	N/D	N/A	N/A	N/A	N/A
CO	100.0	N/D	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/D	N/A	N/A	N/A	N/A

Existing Potential Emissions were taken from permit: 0594-019A
 N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

L Berry Gin Co. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
 The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Michael Mittermeyer
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 19, 2009, received March 23, 2009, designating L. Berry Gin Co. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, dated date.

Mr. K. L. Berry
President
L. Berry Gin Co.
175 4th St.
Holland, MO 63853

RE: New Source Review Permit - Project Number: 2009-03-080

Dear Mr. Berry:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Michael Mittermeyer, at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:mml

Enclosures

c: Southeast Regional Office
PAMS File: 2009-03-080

Permit Number: